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A.D. 1871, 10th *AUGUST*. N° 2109.

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S P E C I F I C A T I O N

OF

JAMES BECKETT & JOHN JAMES CAM.

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TREATING SEWAGE.

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LONDON:

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*Patent Act.*

1872.







A.D. 1871, 10th AUGUST. N° 2109.

### Treating Sewage.

*(This Invention received Provisional Protection only.)*

PROVISIONAL SPECIFICATION left by James Beckett and John James Cam at the Office of the Commissioners of Patents, with their Petition, on the 10th August 1871.

We, JAMES BECKETT and JOHN JAMES CAM, both of Worcester, in the  
5 County of Worcester, Engineers, do hereby declare the nature of the said Invention for “IMPROVEMENTS IN TREATING SEWAGE,” to be as follows, (that is to say) :—

The object of this Invention in the first instance is to remove the solid matter so far as commercially practical, and afterwards to evaporate  
10 the aqueous matter or such portions thereof as may be deemed desirable in an economical manner. It is proposed to accomplish this end by causing the sewage in the first instance to fall into a tank, which is subdivided by vertical transverse diaphragms, so arranged that the sewage descending and ascending over each alternate diaphragm and passing  
15 through filtering beds of lime, gravel, or other suitable materials, by which arrangement the most of the solid parts of the matter contained in solution are trapped, after which the water is conveyed into a large tank or reservoir to allow any remaining solid matter to be deposited in the bottom thereof, after which the watery matter is conveyed through

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*Beckett & Cam's Improvements in Treating Sewage.*

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a circular or other suitable shaped boiler or evaporater attached to and partaking of the contour of a lime kiln having a number of vertical tubes, through which passes the products of combustion arising from the burning of the lime. The vapour arising from the evaporation of the water is conveyed by suitable pipes or passages into a brook or river, 5 by which means it is converted into pure water and polluteth not the stream.

In some cases it may be found advantageous as well as economical on withdrawing the semi-solid matter from the boilers to further dry the same by an arrangement of drying kilns, heated or partially heated by 10 any free or additional waste heat arising from the calcination of the lime, that the said matter may be the more conveniently removed and the lime may be used as a deodorizer.

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